

**WHAT IS CLAIMED IS:**

1. A method of automatically assigning an internet protocol address to a device, comprising the steps of:

providing a network;

providing a computer communicatively coupled to said network;

5 providing a network adapter to communicatively couple said device to said network;

said computer performing the steps of:

generating an internet protocol address;

10 incorporating said internet protocol address in an address resolution protocol probe;

sending said address resolution protocol probe on said network; and

determining whether a response to said address resolution protocol probe indicates that said internet protocol address is in use;

15 wherein if said internet protocol address is not in use, then performing the step of assigning said internet protocol address to said network adapter.

2. The method of claim 1, wherein if said internet protocol address is in use, then further comprising the step of repeating said generating step, said incorporating step, said sending step and said determining step.

3. The method of claim 2, further comprising the step of counting a number of times said generating step is performed.

4. The method of claim 3, comprising the step of comparing said number of times said generating step is performed to a predetermined number.

5. The method of claim 4, wherein said predetermined number is at least 30.

6. The method of claim 4, wherein if said number of times said generating step is performed exceeds said predetermined number then said computer does not automatically assign said network adapter an internet protocol address.

7. The method of claim 1, wherein prior to performing said generating step, said method comprising the steps of:

broadcasting a discovery packet on said network;

receiving a response from said network adapter; and

5 determining if said network adapter has a valid internet protocol address.

8. The method of claim 7, wherein prior to performing said generating step said method comprising the step of determining whether said network allows said computer to assign an internet protocol address to said network adapter.

9. The method of claim 1, wherein said device is a printer.

10. The method of claim 1, wherein said network adapter is a low-cost network adapter.

11. A method of automatically assigning an internet protocol address to a device, comprising the steps of:

providing a network;

providing a computer communicatively coupled to said network;

5 providing a low-cost network adapter to communicatively couple said device to said network;

said computer performing the steps of:

broadcasting a discovery packet on said network;

receiving a response from said low-cost network adapter;

10 determining if said low-cost network adapter has a valid internet protocol address;

wherein if said low-cost network adapter does not have a valid internet protocol address, then said computer performing the steps of:

generating an internet protocol address;

15 incorporating said internet protocol address in an address resolution protocol probe;

sending said address resolution protocol probe on said network;

and

20 determining whether a response to said address resolution protocol probe indicates that said internet protocol address is in use;

wherein if said internet protocol address is not in use, then performing the step of assigning said internet protocol address to said low-cost network adapter.

12. The method of claim 11, wherein if said internet protocol address is in use, then further comprising the step of repeating said generating step, said incorporating step, said sending step and said determining step.

13. The method of claim 12, further comprising the step of counting a number of times said generating step is performed.

14. The method of claim 13, comprising the step of comparing said number of times said generating step is performed to a predetermined number.

15. The method of claim 14, wherein said predetermined number is at least 30.

16. The method of claim 14, wherein if said number of times said generating step is performed exceeds said predetermined number then said computer does not automatically assign said low-cost network adapter an internet protocol address.

17. A network based imaging system, comprising:

a network;

a computer communicatively coupled to said network;

an imaging device; and

5 a network adapter communicatively coupling said imaging device to said network;

10 wherein said computer executes instructions which generate an internet protocol address, incorporate said internet protocol address into an address resolution protocol probe, send said address resolution protocol probe on said network, utilize a response to said address resolution protocol probe to determine if said internet protocol address is in use and if said internet protocol address is not in use, then assign said internet protocol address to said network adapter.

18. The system of claim 17, wherein if said internet protocol address is in use then said computer repeats said instructions.

19. The system of claim 18, wherein said computer counts a number of times said instructions are executed.

20. The system of claim 19, wherein said computer compares said number of times said instructions are executed to a predetermined number.

21. The system of claim 20, wherein said predetermined number is at least 30.

22. The system of claim 20, wherein if said number of times said instructions are executed exceeds said predetermined number then said computer does not automatically assign said network adapter an internet protocol address.

23. The system of claim 17, wherein prior to performing said instructions said computer executes preliminary instructions which broadcast a discovery packet on said network, receive a response from said network adapter and determine if said network adapter has a valid internet protocol address.

24. The system of claim 23, wherein said preliminary instructions further determine whether said network allows said computer to assign an internet protocol address to said network adapter.

25. The system of claim 17, wherein said network adapter is a low-cost network adapter.

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